Welcome to the Hotmart Cases

Data Analysis

Business context

Hotmart is a digital product distribution and sales platform. It works by allowing **creators** to sell courses, ebooks and other content online. Users possibilities' are limitless. They can create online stores through a **sales page**, **receive payments** and access **tools to manage** their digital businesses.

Hotmart is a **global technology company** that offers a complete digital content sales platform with the best structure for **content creators**, **producers**, **affiliates**, **buyers** and is the **market leader throughout Latin America**.

There are more than **580 thousand registered products** and **35 million users** with sales in more than **188 countries**.

For further information about our business, please refer to this link.

> A Hotmart é uma grife. Marca de confiança. Hoje, quem fala de marketing de Afiliados já associada à Hotmart. É uma das precursoras do programa de afiliados da Hotmart.

Priscila Martos
Afiliada

> A Hotmart veio como um facilitador e um acelerador de todo o processo digital. Ela facilita você trabalhar com menos pessoas na sua equipe, a plataforma faz o papel. A maior plataforma de hospedagem de conteúdos digitais da América Latina. O pagamento é feito de uma forma fantástica.

Ricardo Lapa
Produtor da Lapa Team

The Data team

Case Hotmart

The Data team at Hotmart is a multidisciplinary team of **data engineers**, **analytics engineers**, **data scientists** and **data analysts** responsible for building **end to end data solutions** to different types of stakeholders. We must guarantee **accessible**, **auditable** and **actionable** data for the Company, focused in **our clients** (internal and external).

Being a Data analyst at Hotmart will put you in contact with our final client and your role includes (non exhaustive):

- **Translate** business problems into data needs
- **Connect** technical data solutions and improvements to data deliverables
- **Share** knowledge with other Data analysts, reinforcing the Data Chapter

As a fast-growing company with lots of data, **interdependency** and **operational complexity**, the role of a data analyst at Hotmart is to navigate through scenarios ranging from **simple to complex**. Depending on data analyst resource allocation, our **final client** can be **business** structures (local or international), **enablement** structures (finance, legal, people or operations) or **product** structures.

But what does Hotmart expects from you right now?

Skills we are measuring

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Technical Case

Used to measure a candidate's specific skills and knowledge in SQL through coding challenge with problem-solving and scenario-based questions.

- SQL programming
- Scenarios' breakdown for problem solving
- Logical thinking for directive questions
- Optimization and data quality
- Data visualization

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Guidelines and Deliverables

- You can find all the information you need in this document to solve this case. In case you have any doubts, feel free to make assumptions and explain them in your final submission file.

- Review the questions multiple times as much time you need to have a full understanding.

- **All the answers of the Technical case should contain the final data and the SQL code that resulted in that data.**

- **The results of your final submission file should be sent in a pdf file.**

- **All the answers should be in English idiom. We believe this is the best way to keep a global mindset in every data deliverable.**

- If you believe that there is any support material of BI tools, sheets, excel, you can send them as attachments as well (in the same moment you are replying your Hotmart Case). Don't forget to describe each file you are sending and why.
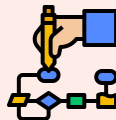
Tips from the Data team

Case Hotmart

Carefully review the scenarios and break the big problem into small problems, considering relevant aspects for your decision-making process

Keep in mind: there is no single correct answer; therefore, elucidate your mental process in detail when answering the questions

Don't be afraid of failing. We encourage you to include both failed or unfinished ideas and experimental proposals in your submission

Feel free to communicate using the most adequate tool for you, but we expect different approaches.

Technical case

Straight forward questions

Recovery tools

Sales recovery refers to the strategy or tools that help complete sales for those who, for some reason, did not complete them.
It is a resource that should be applied to any online business. This is because it allows you to rescue people who did not complete the purchase for different reasons: lack of limit on the card, balance in the account, objections to the purchase, among others.

One of Hotmart tools recovers sales when the customer does not have a sufficient limit on their credit card.

When an attempt to purchase in installments is denied due to insufficient balance on the part of the Buyer, the tool transforms the transaction into a recurring one to prevent the sale from being lost.

Thus, the buyer will receive monthly charges from the Hotmart Payment System until the total purchase amount is paid.

Technical Case
Recovery tools

Based on the available data **"SQL Datasets.zip"**. We would like to know:

1. The top product with most valid purchases (without refund, cancellation or chargeback), in each niche with deactivated membership area and activated recovery.

2. The top 5 producers who joined Hotmart from 2019 onwards and achieved the highest commission using recovery.

3. List the number of completed sales from Brazilian producers in each weekday for the years 2020, 2021 and 2022 and the variation between the weekday sales from 2021/2020 and 2022/2021.

4. List each country's loss performance for each producer country, considering only products from type 'Assinatura'.
   loss_performance = (cancelations+refunds)/total_sales

5. Looking at the products registered after 01/2019, with at least one cancellation and from the product type 'Curso', calculate the average retention performance for commission, of all products, with recovery active and without recovery active. Is there any difference for product performance considering products with the recovery tool activated?
   average_commission_retention = commission_received/total_comission

6. If you need to create a ranking of the top creators of 2023, which variables you consider crucial for ranking them? You can also create variables from the data. You must explain your reasoning and your choice of variables and show how this reflect in your SQL code.

Technical case
Datasets

Products

column_name	description
product_id	Unique ID of a product
producer_id	Unique ID of a producer
registry_date	Product creation date
recovery_active	1 = recovery activated, 0 the opposite
member_area_active	1 = memberhip area activated, 0 the opposite
deletion_date	Product deletion date
niche	Niche that the product belongs
base_price	Price listed at the moment of product creation
type	Product type that the product belongs

Producers

column_name	description
producer_id	Unique ID of a producer
registry_date	Producer account creation date
country	Country of residence

Sales

column_name	description
purchase_id	Unique ID of a purchase
purchase_date	Date of purchase
product_id	Unique ID of a product
product_price	Price payed by the customer (base price minus the discount offered)
service_tax	Platform's fee upon the product price
comission_value	Total value payed to the producer after the discount and platform tax
has_coupon	1 = coupon applied, 0 the opposite
discount	Total discount applied to the product base price
refund	1 = refunded purchase, 0 the opposite
cancelled	1 = cancelled purchase, 0 the opposite
chargeback	1 = chargeback, 0 the opposite

Additionally:
- **cancelled:** when there is a problem processing the payment
- **chargeback:** the purchase was verified as a fraud
- **comission_value:** if a purchase is refunded, cancelled or suffer a chargeback, the money received returns to the buyer, hence there is no commission
- **product_price and service_tax:** even though the money is returned to the buyer, the table retains the value for product price and service taxes to allow loss calculations for these transactions
- **refund:** when the buyer wants the money back

* Remember to validate the data quality before jumping to development

hotmart

Good Game! (GG!)